WHAT IS CLAIMED IS:

1. A brushless motor comprising:

a circuit protecting case;

a holder disposed on said case;

a motor shaft rotatably held by said holder;

a stator disposed about said holder, said stator including a plurality of coils which surround said motor shaft;

a yoke fixed to said motor shaft to rotate therewith, said yoke covering said stator with a given space therebetween;

permanent magnets held by said yoke;

a circuit substrate tightly held in said circuit protecting case;

a drive circuit arranged on said circuit substrate, said drive circuit including a switching section which switches the path of current directed to said coils of the stator and a control section which controls a switching timing of said switching section, said switching section including a plurality of switching elements which generate a certain heat when operated; and

a partition wall provided in said circuit protection case to partition the interior of said case into a first chamber to which the switching elements of said switching section are exposed and a second chamber to which said control section is exposed.

2. A brushless motor as claimed in Claim 1, in which said partition wall is integral with and extends from a part of said case into the interior of the same, and in which said circuit substrate extends through said partition wall.

3. A brushless motor as claimed in Claim 2, in which said circuit protection case is formed with a first ventilation opening through which said first chamber is communicated with the outside of said case.

4. A brushless motor as claimed in Claim 3, in which said circuit protection case is further formed with a second ventilation

opening through which said second chamber is communicated with the outside of said case, and in which said partition wall is formed with a slit through which said first and second chambers are communicated.

5. A brushless motor as claimed in Claim 4, in which said switching elements are attached to a heat sink held by said case, said heat sink having a plurality of heat radiation fins which are exposed to the outside of said case.

6. A brushless motor as claimed in Claim 5, in which said switching elements are pressed against said heat sink by means of a spring member.

7. A brushless motor as claimed in Claim 6, in which an inner surface of said circuit protection case is lined with a noise shielding plate of metal.

8. A brushless motor as claimed in Claim 1, further comprising:

terminal pins extending from the coils of said stator; and

connecting bus bars held by an inner case installed in said circuit protection case, each connecting bus bar having one end welded to a given part of said control section of said drive circuit and the other end welded to corresponding one of said terminal pins.

9. A brushless motor as claimed in Claim 8, in which said circuit substrate is formed with openings through which said terminal pins pass.

10. A brushless motor as claimed in Claim 9, in which said drive circuit further comprises a filter section which filters out surges from a supplied electric power, and in which said filter section has wiring bus bars which are held by said inner case.

11. A brushless motor as claimed in Claim 10, in which said wiring bus bars are respectively provided with connector terminals, each connector terminal being connected to the corresponding wiring bus bar via welding.

12. A brushless motor as claimed in Claim 11, in which the welded portions between the wiring bus bars and the connector terminals are embedded in said inner case.